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09/821,932	03/30/2001	Dennis Boyd	26422/25020	8175

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THOMPSON COBURN, LLP
ONE US BANK PLAZA
SUITE 3500
ST LOUIS, MO 63101

EXAMINER

HO, THOMAS Y

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 12/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/821,932

Applicant(s)

BOYD, DENNIS

Examiner

Thomas Y Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-24,26,27 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-24,26-27,30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

Claim Objections

Claims 1 and 27 are objected to because of the following informalities: as to claim 1, in the third paragraph, the word “being” should be deleted in the phrase “being having at least”; as to claim 27, the two occurrences of the phrase “having of at least” in the second paragraph should have the word “of” deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 24 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Pekar US5638565.

As to claim 24, Pekar discloses, an air mattress comprising: a first inflatable compartment 13 having sides with a length and a width and defining a periphery; a second inflatable compartment 11 extending generally the length and width of the periphery; and a perimeter seal 48 (see Figure I below) connecting said first inflatable compartment to said second inflatable compartment (col.6, ln.10-15), wherein said perimeter seal is spaced inwardly from the periphery, at least one additional seal 48 connecting said first inflatable compartment to said second inflatable compartment, said additional seal defining a fluid communication channel 22 providing fluid communication between the first and second inflatable compartments to enable

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fluid in one of the first and second inflatable compartments to flow into the other of the first and second inflatable compartments. See Figure I below for seals.

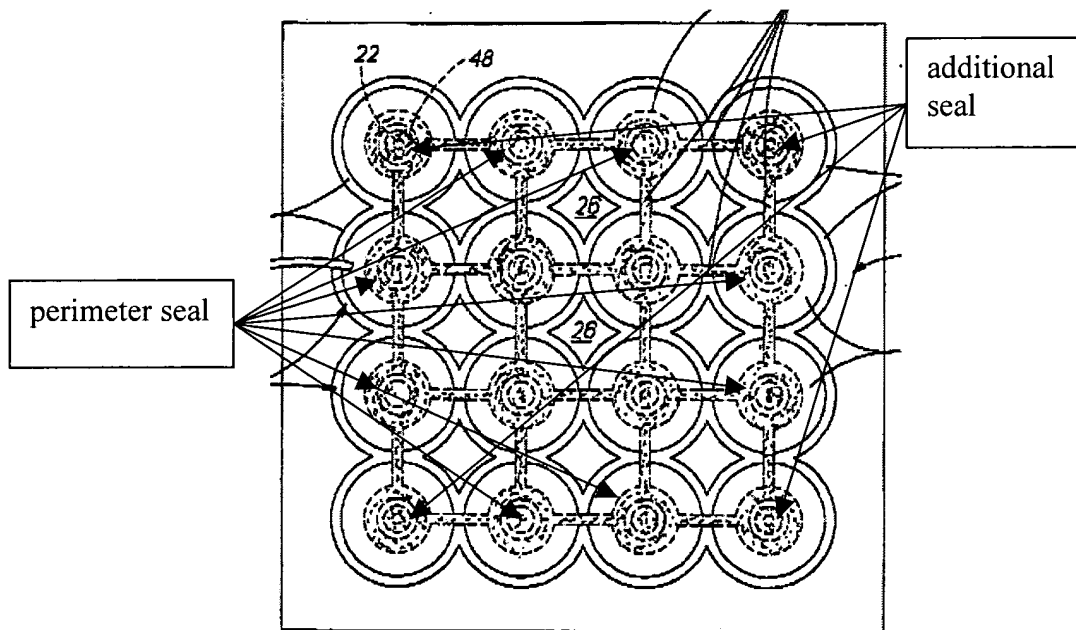


Figure I

As to claim 26, Pekar discloses, an air mattress comprising: a first inflatable compartment 13 having sides with a length and a width and defining a periphery; a second inflatable compartment 11 extending generally the length and width of the periphery, said second inflatable compartment comprising a pair of layers 40,42 joined together by a plurality of discontinuous seals 18,46 (seals 46 are discontinuous in the regions around the passages 20); a perimeter seal 48 (see Figure I above) connecting said first inflatable compartment to said second inflatable compartment, wherein said perimeter seal is spaced a distance from the periphery to give the air mattress a soft, pillow-like appearance and feel when said second inflatable compartment is inflated and to permit limited relative movement of the second compartment with respect to the first compartment; and at least one additional seal 48 (see Figure I above) connecting said first

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inflatable compartment to said second inflatable compartment, said additional seal defining a fluid communication channel 22 providing fluid communication between the first and second inflatable compartments to enable fluid in one of the first and second inflatable compartments to flow into the other of the first and second inflatable compartments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 5, 8, 13-14, 16-17, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pekar US5638565 in view of Cope US5727270, and further in view of case law.

As to claim 1, Pekar discloses, an air mattress comprising: a first inflatable compartment 13 having a length and width, when inflated, sufficient to support a human body, said compartment having a top, a bottom, and sides, said first compartment having at least two layers 40', 42' of thermoplastic material, one layer of thermoplastic material forming the top of the compartment and the second forming the bottom; and a second inflatable compartment 11 disposed on the top of the first inflatable compartment and secured thereto at least along a portion of the first inflatable compartment at a point spaced inwardly from the sides of said first inflatable compartment, said second compartment extending generally the length and width of the top of the first compartment, said second compartment being of a size, when inflated, sufficient to support a human body; said second compartment having at least two layers 40, 42 of

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thermoplastic material distinct from the two layers of thermoplastic material forming the first compartment; said second compartment being inflatable to give the top of the air mattress a soft, pillow-like appearance and feel, wherein said first compartment and said second compartment are secured together adjacent a fluid communication channel 22 the fluid communication channel providing fluid communication between the first and second inflatable compartments to enable fluid in one of the first and second inflatable compartments to flow into the other of the first and second inflatable compartments. The difference between the claim and Pekar is the claim recites the material is vinyl. Cope discloses an inflatable assembly similar to that of Pekar. In addition, Cope further teaches the equivalence of thermoplastic sheets and vinyl (col.3, ln.34-40). It would have been obvious to one of ordinary skill in the art, having the disclosures of Pekar and Cope before him at the time the invention was made, to modify the thermoplastic sheets of Pekar to be replaced with vinyl, as in Cope, to obtain vinyl compartments. One would have been motivated to make such a combination because inasmuch as the references disclose these elements as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982).

As to claim 3, Pekar discloses, the air mattress as set forth in claim 1 wherein the bottom layer 42 of the second compartment 11 is secured to the top of the upper layer 42' of the first compartment.

As to claim 5, Pekar discloses, the air mattress as set forth in claim 1 wherein the first 13 and second 11 compartments are in fluid communication with each other.

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As to claim 8, Pekar discloses, the air mattress as set forth in claim 1 wherein the first 13 and second 11 compartments are substantially free to move with respect to each other except at the periphery thereof. The compartments 11 and 13 are free to move relative to one another except at points where the surfaces of the compartments are joined (note that the claim does not specify the type of movement or direction).

As to claim 13, Pekar discloses, the air mattress as set forth in claim 1 wherein the first compartment 13 and the second compartment 11 are sealed together at a point 48 (see Figure I above) recessed from the periphery of the first compartment, thereby permitting limited relative movement of the second compartment with respect to the first compartment along the edge of the mattress. The compartments 11 and 13 are free to move relative to one another except at points where the surfaces of the compartments are joined (note that the claim does not specify the type of movement or direction).

As to claim 14, Pekar discloses, the air mattress as set forth in claim 13 wherein the seal 48 is recessed approximately one inch. The claim never specifies what the seal must be recessed from.

As to claim 16, Pekar discloses, the air mattress as set forth in claim 1 wherein the only access to the interior of the first and second compartments for inflation of both compartments is through a single valve 24.

As to claim 17, Pekar discloses, the air mattress as set forth in claim 16 wherein the single valve 24 is disposed in a wall of the first compartment 11/13. As evidenced by Figure 3, either of the compartments 11 or 13 could be the first or second compartment.

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As to claim 21, Pekar discloses, the air mattress as set forth in claim 1 wherein the second compartment 11 has a single peripheral seam 46.

As to claim 22, Pekar discloses, the air mattress as set forth in claim 1 wherein the second compartment 14' (see Figure 9) has at least two seams 46,80.

As to claim 23, Pekar discloses, the air mattress as set forth in claim 1 wherein the two layers 40,42 of the second compartment are secured together at a plurality of discontinuous positions 18,46. The positions are discontinuous near the elements 20.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pekar US5638565 in view of Cope US5727270, and further in view of case law, and further in view of Saltness US3251075.

As to claim 4, Pekar discloses, the air mattress as set forth in claim 1. The difference between the claim and Pekar is the claim recites, wherein the second compartment has a soft, non-vinyl fabric secured to the top thereof. Saltness discloses an inflatable cushion similar to that of Pekar. In addition, Saltness further teaches that the whole cushion, including the second compartment, has a soft, non-vinyl fabric secured to the top thereof (col.2, ln.10-25). It would have been obvious to one of ordinary skill in the art, having the disclosures of Pekar and Saltness before him at the time the invention was made, to modify the second compartment of Pekar to have a fabric covering, as in Saltness, to obtain a fabric-covered inflatable cushion. One would have been motivated to make such a combination because the ability to pad the cushion would have been obtained, as taught by Saltness (col.2, ln.10-25).

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Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pekar US5638565 in view of Cope US5727270, and further in view of case law, and further in view of Chung US6332760.

As to claim 18, Pekar discloses, the air mattress as set forth in claim 1. The difference between the claim and Pekar is the claim recites, further including a pump for inflating and/or deflating the first and second compartments (although Pekar does inherently require some kind of pump at tube 24 to inflate/deflate the device). Chung discloses an inflatable cushion similar to that of Pekar. In addition, Chung further teaches a pump for inflating and/or deflating the first and second compartments. It would have been obvious to one of ordinary skill in the art, having the disclosures of Pekar and Chung before him at the time the invention was made, to modify the air mattress of Pekar to have a pump, as in Chung, to obtain an inflatable mattress having a pump. One would have been motivated to make such a combination because the ability to inflate the cushion would have been obtained, as taught by Chung (col.1, ln.10-13).

As to claim 19, Pekar discloses, the air mattress as set forth in claim 18. Chung teaches, wherein the pump is permanently attached to a valve disposed in a wall of the first or second compartment.

As to claim 20, Pekar discloses, the air mattress as set forth in claim 18. Chung teaches, wherein the pump is removably attachable to a valve disposed in a wall of the first or second compartment.

Claims 1, 6-7, 9-12, 15, 27, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfe US5598593 in view of Cook US6148461.

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As to claim 1, Wolfe discloses, an air mattress comprising: a first inflatable compartment 12 having a length and width, when inflated, sufficient to support a human body, said compartment having a top, a bottom, and sides, said first compartment having at least two layers 13,14 of vinyl, one layer 13 of vinyl forming the top of the compartment and the second 14 forming the bottom; and a second inflatable compartment 20 disposed on the top of the first inflatable compartment and secured thereto (any contact is a form of securement; see Figure 4B where the contact between compartments has complementary features that are a form of securement) at least along a portion of the first inflatable compartment 12 at a point spaced inwardly from the sides of said first inflatable compartment, said second compartment 20 extending generally the length and width of the top of the first compartment, said second compartment being of a size, when inflated, sufficient to support a human body; said second compartment having at least two layers 21,22 (or 21,23) of vinyl distinct from the two layers 13,14 of vinyl forming the first compartment; said second compartment being inflatable to give the top of the air mattress a soft, pillow-like appearance and feel. The difference between the claim and Wolfe is the claim recites, wherein said first compartment and said second compartment are secured together adjacent a fluid communication channel the fluid communication channel providing fluid communication between the first and second inflatable compartments to enable fluid in one of the first and second inflatable compartments to flow into the other of the first and second inflatable compartments. Wolfe does disclose that a main purpose of his invention is to be able to adjust inflation of the upper chamber, while the lower chamber remains more rigid (col.1, ln.55-67), and further also discloses that the upper and lower chambers may be divided into several inflatable chambers (col.7, ln.5-12). Cook discloses an

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inflatable cushion similar to that of Wolfe, with the Cook device showing upper and lower chambers 12,13, wherein the lower layer 13 is kept at a higher pressure than the upper layer 12 (col.3, ln.15-30) which is a characteristic desirable in Wolfe, and wherein the upper and lower layers are divided into several chambers (also desirable in Wolfe). Cook further teaches, wherein said first compartment 13 and said second compartment 12 are secured together adjacent a fluid communication channel 33 the fluid communication channel providing fluid communication between the first and second inflatable compartments to enable fluid in one of the first and second inflatable compartments to flow into the other of the first and second inflatable compartments. It would have been obvious to one of ordinary skill in the art, having the disclosures of Wolfe and Cook before him at the time the invention was made, to modify the compartments of Wolfe to have a fluid communication channel, as in Cook, to obtain a passage for fluids between the first and second compartments. One would have been motivated to make such a combination, because the ability to seal the lower layer 13 while only having to maintain the low air loss of the smaller upper layer allowing for a smaller less expensive compressor would have been obtained, as taught by Cook (col.3, ln.35-43). Furthermore, Cook also teaches that having a one-way valve is equivalent to having a closed wall between the compartments (col.2, ln.50-65), and inasmuch as the references disclose these elements as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982).

As to claim 6, Wolfe discloses, the air mattress as set forth in claim 1 wherein the vinyl layers 21,22 of the second compartment 20 are secured together by a plurality of ribs 34

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extending between the top of the second compartment and the bottom of the second compartment.

As to claim 7, Wolfe discloses, the air mattress as set forth in claim 6 wherein the ribs 34 extend transversely across the second compartment 20, said second compartment having channels (between the ends of 34 and the side wall of 20) for flow of air around and through the ribs.

As to claim 9, Wolfe discloses, the air mattress as set forth in claim 1 wherein the first compartment 12 has ribs 30 extending between the layers of vinyl 13,14 making up the first compartment, and wherein the second compartment 20 has ribs 34 extending between the layers of vinyl 21,22 making up the second compartment.

As to claim 10, Wolfe discloses, the air mattress as set forth in claim 9 wherein the ribs 30 of the first compartment 12 are substantially taller than the ribs 34 of the second compartment 20.

As to claim 11, Wolfe discloses, the air mattress as set forth in claim 10 wherein the ribs 30 of the first compartment 12 are at least twenty-five per cent taller than the ribs 34 of the second compartment 20 (see Figure 2).

As to claim 12, Wolfe discloses, the air mattress as set forth in claim 9 wherein the ribs 30,34 of the first and second compartments are composed of vinyl (col.4, ln.40-48).

As to claim 15, Wolfe discloses, the air mattress as set forth in claim 1 wherein the vinyl layers 21,22 of the second compartment 20 are connected together by a first vinyl strip 23 extending between the layers along the periphery of the second compartment, and the vinyl

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layers 13,14 of the first compartment are connected together by a second vinyl strip 15 extending between the layers along the periphery of the first compartment.

As to claim 27, Wolfe discloses, an air mattress comprising: a first inflatable compartment 12 having a top, a bottom, and sides, said first compartment having at least two layers 13,14 of material, one layer of material forming the top of the first compartment and the second layer of material forming the bottom of the first compartment; a second inflatable compartment 20 having a top and a bottom, the second compartment having at least two layers of material 21,22, one layer of material forming the top of the second compartment, the second layer of material forming the bottom of the second compartment, the second compartment being positioned above the first compartment; a perimeter seal 18 connecting the top of the first compartment to the bottom of the second compartment, the perimeter seal being spaced inwardly from the sides of the first compartment (see the perimeter seal in Figure 2), and a plurality of ribs 30,34 extending between the top and bottom of one of the first and second compartments. Cook teaches a fluid communication channel 33 providing fluid communication 33 between the first compartment 13 and the second compartment 12 to enable fluid in one of the first and second inflatable compartments to flow into the other of the first and second compartments.

As to claim 30, Wolfe discloses, an air mattress comprising: a first inflatable compartment 12 having sides with a length and a width and defining a periphery; a second inflatable compartment 20 extending generally the length and width of the periphery, the second inflatable compartment having a top and a bottom; a perimeter seal 18 connecting said first inflatable compartment to said second inflatable compartment, wherein said perimeter seal is spaced inwardly from the periphery (see Figure 2), a plurality of ribs 30,34 extending between

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the top and bottom of the second compartment. Cook teaches a fluid communication channel 33 providing fluid communication between the first 13 and second 12 inflatable compartments to enable fluid in one of the first and second inflatable compartments to flow into the other of the first and second inflatable compartments.

Response to Arguments

Applicant's arguments, see Amendment D, filed 9/19/03, with respect to the rejection(s) of claim(s) 1, 3-24, 26-27, and 30 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the art cited above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US3879776 to Solen discloses an inflatable cushion having fluid communication between two compartments.

US5044030 to Balaton discloses a multiple layer fluid-containing cushion have fluid communication between compartments as shown in 50A and 52A.

US5566408 to McCarthy discloses a wave reduction system for a water mattress showing fluid communication between upper and lower compartments.

US5647078 to Pekar discloses an inflatable structure having fluid communication between upper and lower compartments.

US5647079 to Hakamiun discloses an inflatable patient support service having fluid communication between upper and lower compartments.

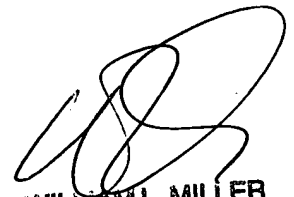
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US5890245 to Klearman discloses a ventilating inflatable mattress showing fluid communication between upper and lower compartments. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Y Ho whose telephone number is (703)305-4556. The examiner can normally be reached on M-F 10:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J Swann can be reached on (703)306-4115. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-1113.

TYH



WILLIAM L. MILLER
PRIMARY EXAMINER